

ABSTRACT OF THE DISCLOSURE

A drive signal with a drive frequency component great relative to unwanted frequency components is detected to stabilize self-oscillation. Also, the burden on a phase shift circuit is reduced with self-oscillation loop gain maintained. Further, the drive signal is extracted large with drive force maintained. In an ultrasonic motor having a piezoelectric vibrating member having a flexion vibrating wave oscillating driving polarized portion so that the piezoelectric vibrating member is oscillated to obtain drive force, a detecting polarized portion is provided symmetrical about a loop of a flexion vibrating wave on the piezoelectric vibrating member in order to detect a drive signal based on oscillation in the driving polarized portion.